Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Kindly cancel claims 1 - 10 without prejudice, in favor of new claims 11 - 24.

Claims 1 - 10. (Cancelled)

11. (New) A cell which secretes enantiomerically pure R-α- lipoic acid into a culture medium, the cell having lipoyl protein ligase B activity which is elevated as compared with the lipoyl protein ligase B activity of a wild-type strain while exhibiting a lipoylatable polypeptide concentration that is elevated as compared to the lipoylatable polypeptide concentration of the wild-type strain.

12. (New) A microorganism comprising the cell of claim 1.

13. (New) A yeast strain or a bacterial strain comprising the cell of claim 1.

14. (New) A bacterial strain comprising the cell of claim 1 wherein the bacterial strain includes a strain from the Enterobacteriaceae family

15. (New) The bacterial strain of claim 14 comprising a strain of the species Escherichia coli.

16. (New) The cell of claim 1 wherein the lipoyl protein ligase B activity is increased by at least a factor of 2.

17. (New) The cell of claim 1 wherein the concentration of the lipoylatable polypeptide is increased at least by a factor of 2.

18. (New) A plasmid comprising:

a lipB gene; and

a gene which encodes a lipoylatable polypeptide.

19. (New) The plasmid of claim 18 wherein each of the lipB gene and the gene which encodes a lipoylatable polypeptide are under the control of a promoter.

20. (New) A method for preparing a cell which secretes enantiomerically pure R-α-lipoic acid into a culture medium, the cell having lipoyl protein ligase B activity which is elevated as compared with the lipoyl protein ligase B activity of a wild-type strain while exhibiting a lipoylatable polypeptide concentration that is elevated as compared to the lipoylatable polypeptide concentration of the wild-type strain, the method comprising:

introducing a plasmid into a starting cell, the plasmid comprising:

a lipB gene; and

a gene which encodes a lipoylatable polypeptide.

21. (New) A method for fermentatively preparing enantiomerically pure R-α-lipoic acid, the method comprising:

culturing a lipoic acid-secreting cell into a culture medium, the lipoic acid-secreting cell secreting enantiomerically pure R-α-lipoic acid into the culture medium;

separating the enantiomerically pure R-α-lipoic acid from the culture medium.

21. (New) The method as claimed in claim 21 wherein the cells are cultured in a minimal salt medium having a carbon source.

22. (New) The method of claim 21 wherein the carbon source comprises a component selected from the group consisting of aspartic acid, malic acid, succinic acid, pyruvic acid, fumaric acid, glutamic acid, glucose, glycerol and oxaloacetic acid.

23. (New) The method of claim 21 wherein fatty acids having a chain length of C2- C8 are added to the medium as specific precursors for the a lipoic acid synthesis.

24. (New) The method of claim 23 wherein the fatty acids have a chain length of C6-C8.